

# **Chapter 5**

## **Implementation and Testing**

### **5.1 Implementation Approaches**

### **5.2 Coding Details and Code Efficiency**

#### **5.2.1 Code Efficiency**

- Naming convention have been utilized for user element and that of variables and functions which help for better understanding of the application code.
- The application does not contain any type of redundant code which might lead to slowing down of applications response time.
- Comments have been declared whenever required for further references.
- The code is written according to the logic which was required for the application to present itself and hence avoiding any type of unwanted lines of code.
- Simplicity has been maintained throughout the application code by making use of sections and proper formatting of the code.
- Validations have been provided in order to prevent from any type of misuse of the application by any of the user.

## **5.3 Testing Approach**

### **5.3.1 Unit Testing**

Unit testing is a level of software testing process where individual units or components of a software system are tested. The purpose of unit testing is to validate that each unit of the software performs as designed. A unit is the smallest testable part of the software. It usually has one or a few inputs and usually a single output. In object-oriented programming, a unit is often an entire interface, such as a class, but can be an individual method. Unit tests are typically written and run by software developers to ensure that code meets its design and behaves as intended.

A unit test is a way of testing a unit - the smallest piece of code that can be logically isolated in a system. In most programming languages, that is a function, a subroutine, a method or property.

Unit Testing - Advantages:

- Reduces Defects in the Newly developed features or reduces bugs when changing the existing functionality.
- Reduces Cost of Testing as defects are captured in very early phase.
- Improves design and allows better refactoring of code.
- Unit Tests, when integrated with build gives the quality of the build as well.

Unit Testing Techniques:

- Black Box Testing - Using which the user interface, input and output are tested.
- White Box Testing - used to test each one of those functions behaviour is tested.
- Gray Box Testing - Used to execute tests, risks and assessment methods.

### **5.3.2 Integrated Testing**

Integration testing is a level of software testing where individual units are combined and tested to verify if they are working properly. Integration testing carries a lot of significance as it helps testers in determining the effectiveness as well as the functionality of the software.

Integration Testing focuses on checking data communication amongst these modules. Hence it is also termed as ‘I & T’ (Integration and Testing), ‘String Testing’ and sometimes ‘Thread Testing’. Integration tests determine if independently developed units of software work correctly when they are connected to each other.

The advantages of integration testing include the following:

- It makes sure that integrated modules work properly as intended.
- The tester can start testing once the modules to be tested are available.
- Integration testing also detects the errors of the individual modules.
- It increases the test coverage and improves the reliability of test.

Software Engineering defines variety of strategies to execute Integration testing, viz.

- Big Bang Approach :
- Incremental Approach: which is further divided into the following
  - Top Down Approach
  - Bottom Up Approach
  - Sandwich Approach – Combination of Top Down and Bottom Up

### **5.3.3 Beta Testing**

Beta testing is one of the types of User acceptance testing. The main goal of user acceptance testing is to check whether the developed software product fulfills the user requirements. Beta testing is performed in order to access the product by exposing it to real end users. After that, the feedback is taken from the users and the defects are fixed. It helps the software product to provide better user experience

There is no standard for what a beta test should look like and how to set up beta testing. The actual testing procedure should be relevant to your testing goals.

#### **Features of beta testing are:**

- Beta testing used in a real environment at the user's site. Beta testing helps in providing the actual position of the quality.
- Testing performed by the client, stakeholder, and end-user.
- Beta testing always is done after the alpha testing, and before releasing it into the market.
- Beta testing is black-box testing.
- Beta testing performs in the absence of tester and the presence of real users
- Beta testing is performed after alpha testing and before the release of the final product.
- Beta testing generally is done for testing software products like utilities, operating systems, and applications, etc.

## **5.4 Modifications and Improvements**

- Modifications made in the database schema for easy storage and access of data
- Integrated Stripe Payment Gateway
- Added various types of validations to authenticate a user for security purpose

## 5.5 Test Cases

### a) Signup form

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post-Condition	Actual Result	Status (PASS/FAIL)
TC_SIGNUP_001	Verify the registration of User	Enter Valid Name, Username, Email, Mobile No, Gender, Password	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Valid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	Successful Signup	Redirect to Login Page	Successful Signup	Pass
TC_SIGNUP_002	Verify the registration of User	Enter null Name and valid Username, Email, Mobile No, Gender, Password	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Invalid Name> <Valid Username> <Valid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Name must be atleast 3 characters' is shown	Stays on Signup Page	A message 'Name must be atleast 3 characters' is shown	Pass
TC_SIGNUP_003	Verify the registration of User	Enter Valid Name, Email, Mobile No, Gender, Password and username with 3 characters	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Invalid Username> <Valid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Username must be alphanumeric and atleast 6 characters' is shown	Stays on Signup Page	A message 'Username must be alphanumeric and atleast 6 characters' is shown	Pass
TC_SIGNUP_004	Verify the registration of User	Enter Valid Name, Username, Mobile No, Gender, Password and Invalid email	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Invalid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Enter valid email-id' is shown	Stays on Signup Page	A message 'Enter valid email-id' is shown	Pass
TC_SIGNUP_005	Verify the registration of User	Enter Valid Name, Username, Email, Mobile No, Gender and Password of 6 characters	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Valid Email> <Invalid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Password must be minimum 8 characters and alphanumeric' is shown	Stays on Signup Page	A message 'Password must be minimum 8 characters and alphanumeric' is shown	Pass
TC_SIGNUP_006	Verify the registration of User	Enter Valid Name, Username, Email, Mobile No, Gender, Password and different confirm password	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Valid Email> <Valid Password> <Unmatched Password> <Valid Mobile number> <Selected Gender>	A message 'Password and Confirm Password must match' is shown	Stays on Signup Page	A message 'Password and Confirm Password must match' is shown	Pass
TC_SIGNUP_007	Verify the registration of User	Enter Valid Name, Username, Email, Mobile No, Password and Null Gender	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Valid Email> <Valid Password> <Unmatched Password> <Valid Mobile number> <Selected Gender>	A message 'Gender is Required' is shown	Stays on Signup Page	A message 'Gender is Required' is shown	Pass
TC_SIGNUP_008	Verify the registration of User	Enter Name and valid Username, Email, Mobile No, Gender, Password and empty username	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Invalid Name> <Valid Username> <Valid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Name must be atleast 3 characters' is shown	Stays on Signup Page	A message 'Name must be atleast 3 characters' is shown	Pass
TC_SIGNUP_009	Verify the registration of User	Enter Valid Name, Username, Email, Mobile No, Gender, Password and empty Mobile Number	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Valid Name> <Valid Username> <Valid Email> <Valid Password> <Matched Password> <Invalid Mobile number> <Selected Gender>	A message 'Contact Number must be 10 digits' is shown	Stays on Signup Page	A message 'Contact Number must be 10 digits' is shown	Pass
TC_SIGNUP_010	Verify the registration of User	Enter 2 characterd Name and valid Username, Email, Mobile No, Gender, Password	Visit the Signup Page	1) Enter Name 2) Enter UserName 3) Enter Email 4) Enter Password 5) Confirm Password 6) Mobile Number 7) Select Gender 8) Click 'SignUp' Button	<Invalid Name> <Valid Username> <Valid Email> <Valid Password> <Matched Password> <Valid Mobile number> <Selected Gender>	A message 'Name must be atleast 3 characters' is shown	Stays on Signup Page	A message 'Name must be atleast 3 characters' is shown	Pass

## b) Login Form

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post- Condition	Actual Result	Status (PASS/FAIL)
TC_Login_001	Verify the login of User	Enter Valid Email and Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Valid Email> <Valid Password>	Successful Login	Redirected to "Choose-Role" page	Successful Login	Pass
TC_Login_002	Verify the login of Admin	Enter Valid Email and Password	Need a Valid Admin Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Valid Admin Email> <Valid Admin Password>	Successful Login	Redirected to Admin dashboard	Successful Login	Pass
TC_Login_003	Verify the login of User	Enter wrong Email and Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Invalid Email> <Invalid Password>	A message 'Bad Credentials' is shown	Stays on Signin page	A message 'Bad Credentials' is shown	Pass
TC_Login_004	Verify the login of User	Enter Invalid Email and Valid Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Invalid Email> <Valid Password>	A message 'Enter valid email' is shown	Stays on Signin page	A message 'Enter valid email' is shown	Pass
TC_Login_005	Verify the login of User	Email and Empty Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Valid Email> <Empty Password>	A message 'Password field is required' is shown	Stays on Signin page	A message 'Password field is required' is shown	Pass
TC_Login_006	Verify the login of User	Enter null Email and Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Invalid Email> <Invalid Password>	A message 'Bad Credentials' is shown	Stays on Signin page	A message 'Bad Credentials' is shown	Pass
TC_Login_007	Verify the login of User	Enter null Email and Valid Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Invalid Email> <Valid Password>	A message 'Enter valid email' is shown	Stays on Signin page	A message 'Enter valid email' is shown	Pass
TC_Login_008	Verify the login of User	Enter Valid Email and wrong Password	Need a Valid Account to Login	1) Enter Email 2) Enter Password 3) Click 'Login' Button	<Valid Email> <Empty Password>	A message 'Bad Credentials' is shown	Stays on Signin page	A message 'Bad Credentials' is shown	Pass

### c) Add-Vehicle Form

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post- Condition	Actual Result	Status (PASS/FAIL)
TC_addVehicle_001	Add User's vehicle	Enter Valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Valid No. of Seats> <Documents Uploaded> 	A message "Vehicle added successfully" is shown	Successful	A message "Vehicle added successfully" is shown	Pass
TC_addVehicle_002	Add User's vehicle	Enter empty model and other Valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Invalid Model> <Valid nameplate> <Valid No. of Seats> <Documents Uploaded> 	A message "Please provide model name" is shown	Stays on Add-Vehicle Page	A message "Please provide model name" is shown	Pass
TC_addVehicle_003	Add User's vehicle	Enter numeric nameplate and other valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Invalid nameplate> <Valid No. of Seats> <Documents Uploaded> 	A message "Enter valid nameplate number" is shown	Stays on Add-Vehicle Page	A message "Enter valid nameplate number" is shown	Pass
TC_addVehicle_004	Add User's vehicle	Enter empty number of seats and other Valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Empty No. of Seats> <Documents Uploaded> 	A message "Number of seats can't be empty" is shown	Stays on Add-Vehicle Page	A message "Number of seats can't be empty" is shown	Pass
TC_addVehicle_005	Add User's vehicle	Enter Valid Vehicle details but no documents	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Valid No. of Seats> <No Documents Uploaded> 	A message "Vehicle Documents are required" is shown	Stays on Add-Vehicle Page	A message "Vehicle Documents are required" is shown	Pass
TC_addVehicle_006	Add User's vehicle	Enter Invalid model and other Valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Invalid Model> <Valid nameplate> <Valid No. of Seats> <Documents Uploaded> 	A message "Please provide model name" is shown	Stays on Add-Vehicle Page	A message "Please provide model name" is shown	Pass
TC_addVehicle_007	Add User's vehicle	Enter empty nameplate and other valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Invalid nameplate> <Valid No. of Seats> <Documents Uploaded> 	A message "Enter valid nameplate number" is shown	Stays on Add-Vehicle Page	A message "Enter valid nameplate number" is shown	Pass
TC_addVehicle_008	Add User's vehicle	Enter 1 number of seats and other Valid Vehicle details	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Empty No. of Seats> <Documents Uploaded> 	A message "Number of seats can't be empty" is shown	Stays on Add-Vehicle Page	A message "Number of seats can't be empty" is shown	Pass
TC_addVehicle_009	Add User's vehicle	Enter Valid Vehicle details but no vehicle Rc documents	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Valid No. of Seats> <No Documents Uploaded> 	A message "Vehicle Documents are required" is shown	Stays on Add-Vehicle Page	A message "Vehicle Documents are required" is shown	Pass
TC_addVehicle_010	Add User's vehicle	Enter Valid Vehicle details but no Driving License documents	Visit the add-vehicle page	1) Enter Model 2)Enter nameplate 3)Enter No. of Seats 4)Upload Documents 5) Click 'Add Vehicle' Button	<Valid Model> <Valid nameplate> <Valid No. of Seats> <No Documents Uploaded> 	A message "Driving license are required" is shown	Stays on Add-Vehicle Page	A message "Driving license are required" is shown	Pass

# Chapter 6

## Results and Discussion

### 6.1 Test Reports

<b>Test Report</b>						
Test Cycle	System Test					
EXECUTED	PASSED				28	
	FAILED				0	
<i>(Total) TESTS EXECUTED</i>						28
PENDING					0	
IN PROGRESS					0	
BLOCKED					0	
<i>(Sub-Total) TEST PLANNED</i>						28
<i>(PENDING + IN PROGRESS + BLOCKED + TEST EXECUTED)</i>						
<hr/>						
Functions	Description	% TCs Executed	% TCs Passed	TCs pending	Priority	Remarks
Verify User by Login	Verify User Account by Login	100%	100%	0	High	
New User by Signing up	Check User Account is added by signing up	100%	100%	0	High	
Verify Admin by Login	Verify Admin Account by Login	100%	100%	0	High	
Add vehicle by User	Verify Vehicle Added by User	100%	100%	0	High	
Post Ride by User	Check Ride Posted is added by User	100%	100%	0	High	
Add City by Admin	Verify City is added by Admin	100%	100%	0	High	

## 6.2 User Documentation

- **Homepage** – This is the website's home page. Users may log in using their username/email and password, or they can register by clicking the signup link.

The screenshot shows the RideAlong login page. At the top, there is a logo with two red arrows pointing right, followed by the text "RideAlong". To the right of the logo are four links: "Contact Us", "Sign Up", and "Login". Below this is a large "Login" button. The main form area contains fields for "Username" and "Password", both enclosed in blue rounded rectangles. Below these fields is a small link "Doesn't have an account? SignUp". At the bottom of the form is a "Submit" button. The entire page has a light gray background with a dark blue header and footer bar.

- **SignUp** – Users may sign up for an account by filling out the form below. User authentication requires the uploading of documents, which can be confirmed by the admin.

The screenshot shows the RideAlong sign-up page. At the top, there is a logo with two red arrows pointing right, followed by the text "RideAlong". To the right of the logo are four links: "Contact Us", "Sign Up", and "Login". Below this is a large "SignUp" button. The main form area contains several input fields: "Profile Pic" (with a "Choose File" button showing "No file chosen"), "Name" (text input), "Username" (text input), "Email" (text input), "Password" (text input), "Confirm Password" (text input), "Gender" (radio buttons for "Male" and "Female"), "Mobile number" (text input), and "Document" (with a "Choose File" button showing "No file chosen"). At the bottom of the form is a "SignUp" button. The entire page has a light gray background with a dark blue header and footer bar.

- **User Dashboard** – All of the user's information, as well as feedback, rides, and payments, will be displayed here. The buttons on the right allow the user to go to various pages based on functionality.

The screenshot shows the RideAlong user dashboard. At the top, there is a logo with a stylized car icon and the text "RideAlong". To the right are links for "Contact Us", "Messenger", and "SignOut". Below the header is a profile section featuring a placeholder profile picture and the following user information:

- Name: user02
- Email: user02@gmail.com
- Username: user02
- Gender: Female
- Documents: Verified

To the right of this information is a vertical stack of buttons:

- Add Vehicle
- Post Ride
- Find Ride
- Ride requests
- Check Ride status

Below the profile section is a navigation bar with three tabs: "Rides", "Feedbacks", and "Payments". Under the "Rides" tab, there is a table showing three past trips:

Source	Destination	Time
Mumbai	Pune	2022-01-23
Delhi	Mumbai	2022-01-23
Pune	Delhi	2022-01-23

At the bottom of the page is a footer bar with the copyright notice: "© Copyright RideAlong. All Rights Reserved".

- **Adding vehicle** - Users can enter the details of their car, which they may utilise for the ride, in this section. A user cannot post a ride without first adding a vehicle.

The screenshot shows the "Add Vehicle" form. At the top, there is a logo with a stylized car icon and the text "RideAlong". To the right are links for "Contact Us", "Messenger", and "SignOut". The main form area has a title "Add Vehicle" and contains the following input fields:

- Model:
- Number on nameplate:
- Number of seats (including driver seat):
- License:  Choose File | No file chosen
- Vehicle Insurance:  Choose File | No file chosen
- Vehicle RC:  Choose File | No file chosen

At the bottom of the form is a blue "Add" button.

At the very bottom of the page is a footer bar with the copyright notice: "© Copyright RideAlong. All Rights Reserved".

- **Posting ride-** This form can be used to post a ride. By setting the fare to zero, users may provide a free trip.

Source: Mumbai

Destination: Mumbai

Vehicle: xyz

Seats:

Fare:

Start Time: dd-mm-yyyy -- : --

**Post**

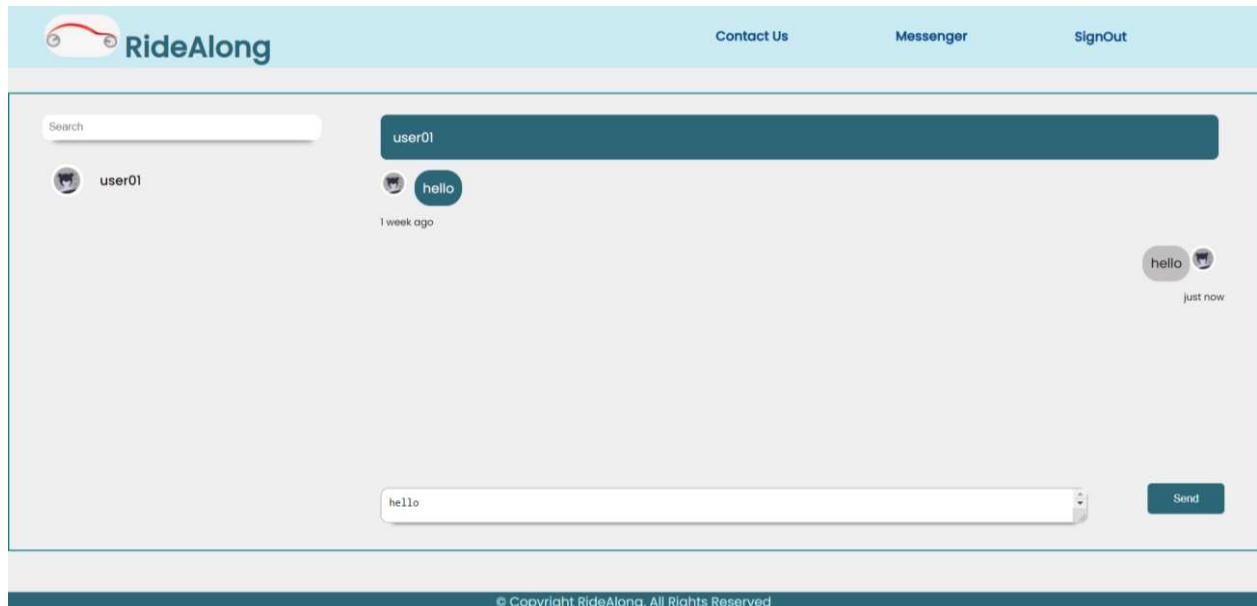
© Copyright RideAlong. All Rights Reserved

- **Finding ride -** On this page, all of the rides posted by rider users will be shown. Users can request a ride and wait for approval. Users may also have a chat with the rider.

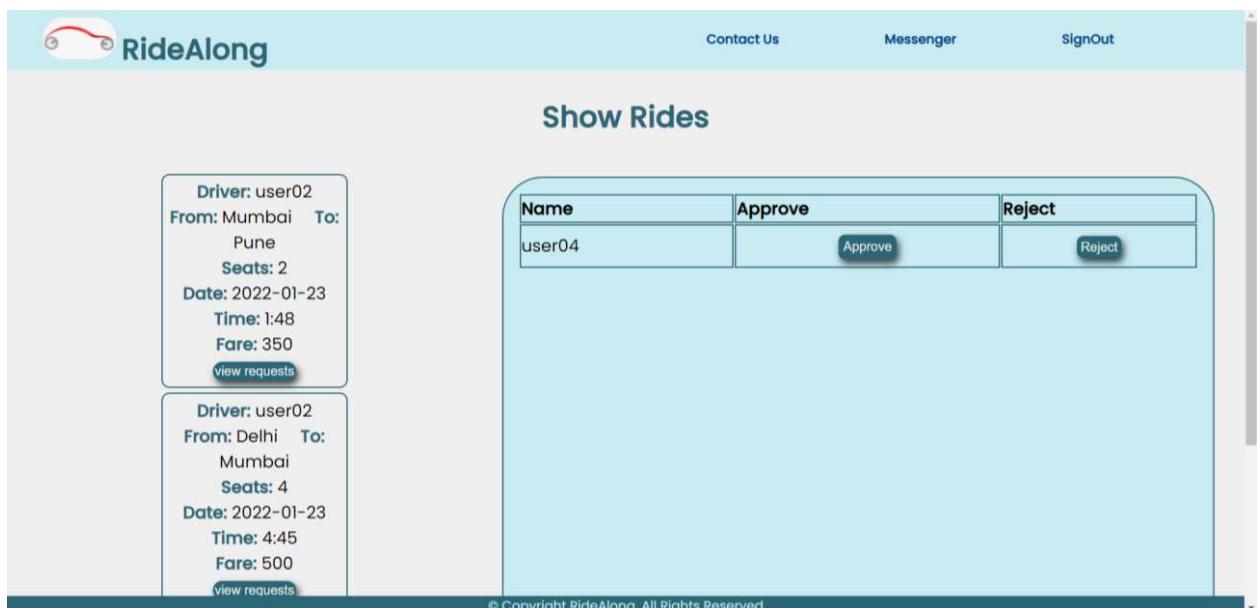
Driver: user02 From: Pune To: Delhi Seats: 3 Date: 2022-01-23 Time: 2:46 Fare: 1200	<b>Request</b> <b>Chat</b>
Driver: user02 From: Delhi To: Mumbai Seats: 4 Date: 2022-01-23 Time: 4:45 Fare: 500	<b>Request</b> <b>Chat</b>
Driver: user02 From: Mumbai To: Pune Seats: 2	

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- **Chat** - This is the passenger and rider chat page, where they may communicate and discuss the queries related to the ride.



- **View ride requests** - After the ride has been posted, the user can review the requests for that ride and approve or reject them.



- **Ride status** - This page displays the status of user-requested rides, including whether the request was approved and the fare was paid.

The screenshot shows a web-based application interface for 'RideAlong'. At the top, there's a header bar with the 'RideAlong' logo, 'Contact Us', 'Messenger', and 'SignOut' buttons. Below the header, the title 'Check Ride Status' is centered. A table follows, displaying three ride requests with their status and payment information:

Ride	Request Status	Payment Status
Mumbai to Pune	Approved	Paid
Pune to Delhi	Approved	Paid
Mumbai to Mumbai	Approved	<b>Pay Now</b>

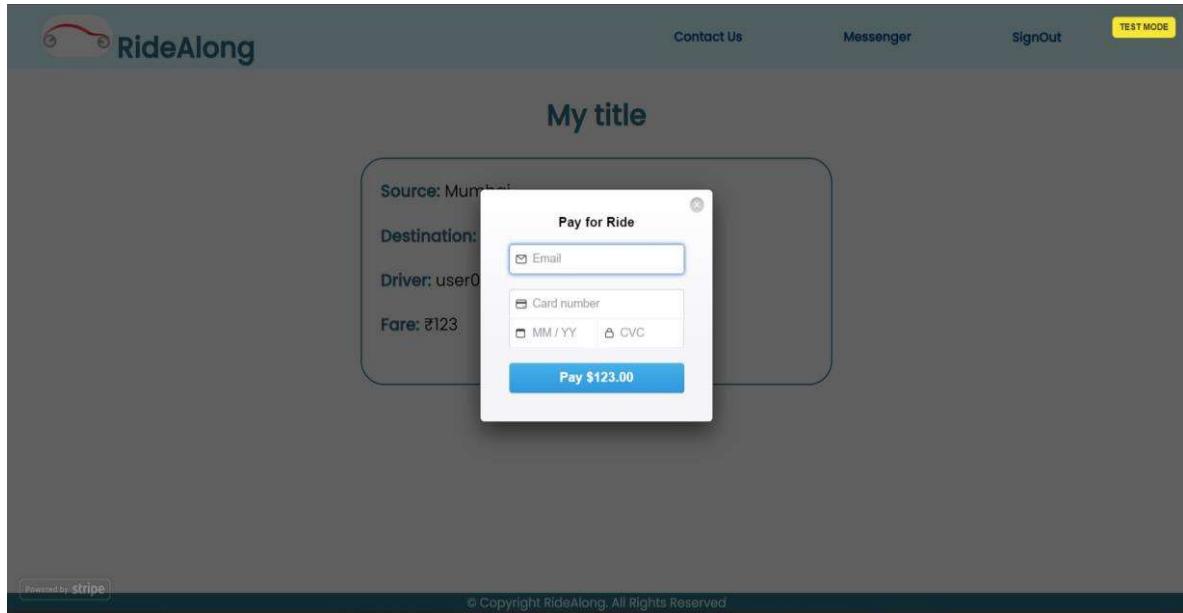
At the bottom of the page, a copyright notice reads '© Copyright RideAlong. All Rights Reserved'.

- **Pay** - This is the payment gateway for the ride's fee.

The screenshot shows a payment gateway page for a ride from Mumbai to Mumbai. The top navigation bar includes the 'RideAlong' logo, 'Contact Us', 'Messenger', and 'SignOut' buttons. The main title is 'My title'. Below it, a box contains the following details:

- Source:** Mumbai
- Destination:** Mumbai
- Driver:** user02
- Fare:** ₹123

A 'Pay with stripe' button is located at the bottom right of the box. The footer of the page includes the copyright notice '© Copyright RideAlong. All Rights Reserved'.



- **Admin Dashboard** – This is Admin dashboard which contains admin info and functionalities of admin

The screenshot shows the 'Welcome to Admin Dashboard' page. At the top, there is a navigation bar with the 'RideAlong' logo and links for 'Contact Us', 'Messenger', 'SignOut', and a yellow 'TEST MODE' button. The main content area features a large title 'Welcome to Admin Dashboard'. On the left, there are three teal-colored buttons with white text: 'Add City', 'Delete City', and 'Verify Users'. On the right, there is a profile card for a user named Tanvi Naik. The card includes a circular profile picture of a woman with dark hair in pigtails, and the following information: Name: Tanvi Naik, Email: naiktanvi30@gmail.com, Username: tanvi30, and Role: Admin. At the bottom of the screen, there is a copyright notice: '© Copyright RideAlong. All Rights Reserved'.

- **Verifying user documents-** Admin can verify the documents uploaded by the users in this page

Name	Document	status
Tanvi Naik	<a href="#">Show Document</a>	Verified
user01	<a href="#">Show Document</a>	Verified
user02	<a href="#">Show Document</a>	Verified
user04	<a href="#">Show Document</a>	Verified
Tanvi Naik	<a href="#">Show Document</a>	<a href="#">Verify user</a>

- **Adding city:** Adding city to database can be done here by the admin

# **Chapter 7**

## **Conclusions**

### **7.1 Conclusions**

Carpooling is a very efficient way to minimise pollution and traffic congestion in cities. It also provides an environmentally beneficial mode of transportation. It also gives you the chance to meet new individuals. Because of the delays in public transportation and the comforts given by private automobiles, most individuals today choose to travel by private vehicle. Pre-registration guarantees that only identifiable individuals enter the car, allowing for the establishment of confidence. As a result, the proposed carpooling system will be beneficial in lowering pollution levels.

This carpooling application is designed to be performing, scalable, extensible, and highly available. It also ensures the privacy of the user's data and secures its access. Given that it may be improved in many ways, the application is also easily maintainable. The result achieved in this project is a working Web application and server that perform the requirements stated in this document.

#### **7.1.1 Significance of the System**

- The proposed system's major goal is to implement carpooling in India and avail the benefits.
- The system is easy to use as it is user friendly
- The user information will be properly stored in the database and the passwords will also be in encrypted form
- The working of the system is very organized form

## **7.2 Limitations of the System**

- There is no way to track the position of a car in real time.
- The accessibility of the website for color-blind individuals is not taken into account.

## **7.3 Future Scope of the Project**

- Can add realtime tracking of ride.
- The ability to arrange monthly rides is a useful feature for users that travel to work on a daily basis can be introduced.
- Pooling system can be introduced for transportation of goods in sharing manner (Truck Pooling).

# **References**

## **1. Web References**

- <http://www.youtube.com>
- <http://www.w3schools.com>
- <http://www.google.com>
- [www.tutorialspoint.com](http://www.tutorialspoint.com)

## **2. Documentation**

- <https://docs.mongodb.com/>
- <https://nodejs.org/en/docs/>
- <https://express-validator.github.io/docs/>
- <https://reactjs.org/>

# **Glossary**